Coe (H. C.)

[Reprinted from the American Journal of Obstetrics and Diseases of Women and Children, Vol. XXIII., No. 6, 1890.]

THE

LIMITS OF VAGINAL HYSTERECTOMY

FOR

CANCER OF THE UTERUS.

BY

HENRY C. COE, M.D.,

New York.

"Operations for a disease which give unjustifiable secondary results have no place in good surgery," says Tait in dismissing the subject of vaginal hysterectomy. While this is only an individual opinion, not based upon a careful study of statistics, it is that of a daring surgeon who has never shrunk from the most formidable operation, and as such it is deserving of respect. Doubtless it will have little or no influence upon the enthusiastic advocates of the radical treatment of uterine cancer, and naturally the following brief paper will have still less. The writer's purpose in presenting a paper, which partakes of the character of a personal confession, is simply to abjure an error into which he believes that he has fallen, fortunately at the outset rather than at the end of his professional career. Though from a scientific standpoint his

statistics may seem to be too few and unfavorable, as compared with those of others, to justify the expression of a positive opinion, he wishes to present them before they become larger—and worse. If it can be shown that within the short space of two years the most mournful results have followed vaginal hysterectomy, it is not necessary to wait four in order that all the patients may be reported as dead. All that he can say in favor of these statistics is that they may be thoroughly relied upon; they are too bad to be other than true. We present specimens of cancerous uteri here and describe the operations for their removal; but all these merely serve to show to our professional brethren our activity in surgery—what we are doing, not what we have done. John Williams goes to the root of the matter when he says in his "Harveian Lectures" for 1886: "I cannot conceive any good object in operating upon a patient on a Monday and reporting her case on a Thursday, and then burying it out of sight forever."

It is a matter for congratulation that American surgeons, prompt as they are to adopt new operations, and bold and ingenious as they are in developing them, even beyond the limits prescribed by their originators, are naturally conservative, and are more disposed to consult the interests of the patient than their own fame or desire to test thoroughly a certain method. This has been particularly marked in respect to vaginal hysterectomy. We can show no such statistics as the Germans. American gynecologists of large experience have not had over a dozen cases; not a man in this country can point to his thirty or forty. Is this a matter for regret? No; let us be proud of the self-control and humanity of our countrymen. I say "self-control," because it requires no small amount, especially in a young surgeon, to refrain from performing a brilliant operation in a case in which it is not only sanctioned but is strongly advised by the highest authority.

Baker sought to stem the tide of popular enthusiasm in favor of vaginal hysterectomy six years ago, and his effort was a notable one; then Reamy, whose name is a synonym for all that is honest and true, threw his powerful influence into the scale; now in rapid succession we have the convincing statistics of Byrne and the short, stirring paper of Reeves Jack-

son, which goes straight to the heart of the matter with its keen, pitiless logic. All these powerful attacks upon vaginal hysterectomy have been made by Americans—by men whose names alone are sufficient warrants for the accuracy of their statistics. It seems to me that it is our duty to support these bold reformers, and that, too, in no uncertain way. It is time for us to come forward and say whether we have found in vaginal hysterectomy all that has been claimed for it by its ardent advocates. If this brief paper serves to elicit from you a general and honest expression of opinion, it will have accomplished its purpose and the author can well afford to bear any odium which may result to himself. It is unnecessary to rehearse in your hearing the literature of this subject, which is most voluminous. One could not add anything which would strengthen Jackson's arguments if he tried. Even the recent favorable statistics of Fritsch, and the almost unanimous plea of his countrymen for the radical operation, do not outweigh the former's simple statement of facts.

During the past two years and a half the late Dr. Hunter and the writer performed nineteen vaginal hysterectomies, twelve having been done by the former. In every instance but one the patient was under the writer's exclusive care after the operation, and (with a single exception) her history has been obtained up to date. In selecting cases for the radical operation the following conditions were assumed as justifying it: 1. That the vagina should not be extensively involved; 2. That the disease should not have extended to the broad ligaments, as far as could be determined by examination under ether; 3. That the uterus should be fairly movable, though Meyer's indication, that it should always be possible to draw the cervix through the vulva, was not regarded as essential; 4. That the organ should not be too large to prevent its easy removal per vaginam.

It must be admitted that a few of Dr. Hunter's earlier cases seemed to the writer to be unsuitable for operation, on account of the poor general condition of the patient; but these women did as well as others who were in excellent health, and had a recurrence no earlier. In two or three instances it is certain that the broad ligaments were diseased and that the operation ought not to have been performed. But here again we cannot always

decide what it is best to do. The indurations at the bases of the broad ligaments may be of purely inflammatory origin, as the subsequent history of the patient will show. Let us analyze the nineteen cases referred to. Of these, in fourteen the disease was confined to the cervix, in five to the body of the uterus. Forcipressure was employed in all but one case. Five patients out of the first class succumbed to the operation —one from secondary hemorrhage due to the slipping of a clamp, one from exhaustion (the patient ought not to have been operated upon), one from uremia, and two from intestinal obstruction (the writer's own cases, which have already been reported). The sixth case was also one of his, the operation being unusually easy, but the patient had a diseased heart and contracted kidneys, and succumbed on the fourth day. She ought not to have died. Of the thirteen patients who survived the operation the following is the mournful history: Case 1, which was not by any means the most favorable, had a recurrence in eighteen months, the entire base of the bladder being involved. Case 7 was the most favorable of all. The patient was in robust health, was absolutely free from bad symptoms, and the disease was confined to the fundus uteri. The operation was easy and the convalescence normal. This patient returned within twelve months with a recurrence in the cicatrix, and both the rectum and the bladder are now involved. Two patients (cases 9 and 11) had a recurrence within seven months. In one instance the patient had an easy convalescence, while in the other it was protracted on account of a cardiac lesion. In case 5 the disease was limited to the portio vaginalis and the patient was a young woman in excellent health. The operation was easy, and she was up and about at the end of the third week. Within six months she returned, only a shadow of her former self, with extensive recurrence involving the bladder and the rectum. In cases 2, 4, and 9 there was a recurrence within two months after the operation, justifying the inference that all the disease had not been removed at the time. These were by no means complicated cases, however, as the epithelioma was to all intents confined to the cervix, and the uterus was movable. Case 6 (operation seventeen months ago) is the only one from which no report has been received. Case 13

is now well, at the end of eleven months. In cases 15 and 16 it is too soon after operation (four months) to predict the permanent result, and case 18 is only in the third week of convalescence. Here is the summary: Died, 6; recurrence within eighteen months, 1; recurrence within twelve months, 1; within seven months, 2; within six months, 1; within two months, 3; not heard from, 1; well at the end of ten months, 1; too soon to determine, 3.

With regard to the high rate of mortality, attention should be called to the fact that one death was really accidental, being due to the slipping of a pair of forceps which included the left ovarian artery, while in two of the writer's fatal cases it was necessary to perform laparatomy for the relief of that rare complication—intestinal obstruction—only ten cases of which have been reported out of twelve or fifteen hundred vaginal hysterectomies. Granting that in three of the fatal cases there may have existed contra-indications to the radical operation, in the other three death was due to unusual, not to say to accidental, causes.

The writer's own statistics are of no value as regards the question of recurrence, since the operations were all performed within the past year; they are introduced simply to call attention to possible unavoidable dangers.

In presenting these very unfavorable statistics the writer is well aware that they are open to serious criticism in the following respects. It may be urged:

1. That some cases were unsuitable for a radical operation.
2. That the disease was not entirely removed at the time of operation.
3. That the technique was defective.
4. That the statistics are among the worst that have been presented, hence it is unjust to compare them with the much more favorable results of operators of wider experience, especially on the Continent.

In regard to the first objection, it need only be said that the first twelve of these patients were operated upon by the late Dr. Hunter, whom you knew as an accomplished diagnostician and a conservative surgeon. The writer personally examined all but one of the patients, and, in the light of subsequent experience, he believes that in the three in which a recurrence

took place within two months the broad ligaments had become involved to such a degree as to contra-indicate total extirpation of the uterus. At the same time this was not supposed to be the case at the time of the operation, else it would not have been performed. A careful examination of each patient was made in order to exclude serious visceral complications, but the presence of transient albuminuria (even if a few casts were present) was not regarded as a positive contra-indication, otherwise many women with cancer of other portions of the body would be allowed to die unrelieved; its frequent occurrence is noted in patients with cancer of the uterus. With perhaps one or two exceptions, we were guided by Greig Smith's rule, viz.: "The patient must be in fair health, with a prospect of average longevity from general soundness of organs apart from the malignant disease."

Was the disease entirely removed at the time of the operation? So far as it was possible to determine, this was true in fifteen. The others are open to suspicion, if we accept Jackson's inference that "whenever symptoms of so-called recurrence are manifested within a few months after an operation, it may very generally be accepted that the fact indicates a continuance rather than a recurrence, and that the disease in such cases has only been partially removed."

In this connection the writer would say that he places little confidence in Dr. E. C. Dudley's statement that by the use of the forceps we cause more extensive sloughing of the parauterine tissues, and thus affect favorably diseased portions of the broad ligaments which are not actually excised at the time of the operation. Sloughing there certainly is, but he has never observed such a result as Dr. Dudley describes. One can only remove diseased tissue which he can see or feel at the time of the operation; he cannot trace impalpable lymphatic infiltrations except with the scientific imagination. It is in the broad ligaments that the dangerous unseen foci exist, and there is a limit to the extent to which we can invade these tissues with either scissors or forceps without injuring the ureters, unless the latter be previously catheterized according to Pawlik's plan—a procedure which calls for unusual technical skill.

The writer feels some hesitation in replying to the third

objection, because it involves a seeming criticism of the surgical skill of one whose work is finished, who has been lifted beyond our praise or blame. Your personal knowledge of the late Dr. Hunter's special skill and experience will assure you that, so far as his own operations were concerned, they were performed as carefully and conscientiously as would have been done by any other American surgeon. In the writer's last unfortunate case he can explain the fatal termination by the fact that, owing to the perforation of the softened fundus uteri by the vulsella, a small quantity of sarcomatous material came in contact with the peritoneum. Thorough irrigation was practised. The same thing occurred in two previous instances without bad consequences. Granting that the technique in this case was defective, in the two fatal cases of intestinal obstruction death must be regarded as unavoidable. He can only add that in all his difficult and complicated cases the patient made a good recovery.

He is willing to admit with German writers that only those of large experience can hope to perfect their technique to such a degree as to reduce their mortality even lower than Fritsch's (6–8 per cent). The same applies to abdominal section, as shown by the statistics of some of our own Fellows. He does not believe that every one should dabble with laparatomy, nor is it justifiable for every gynecologist to aspire to report two or three, or half a dozen, cases of vaginal hysterectomy. Still, the question naturally suggests itself: "How can a man acquire skill in the performance of a certain operation unless he gives it a fair trial?" It is not, he would have you understand, the immediate mortality of vaginal hysterectomy which will deter him from performing it as freely as he has done in the past. When you ask if defective technique would account for the rapid recurrence in the cases reported (excluding the three in which it is assumed that the disease was not entirely removed at the time of the operation), he can only say that this may have been the explanation.

To the fourth objection, that it is unfair to condemn an operation from such manifestly unfavorable statistics, the writer assents, but with this qualification. The statistics of Martin, of Fritsch, and of the Dresden clinic represent the results of operators of exceptional experience. It is not likely that

any surgeon in this country will ever attain to the same technical skill, because he will never perform one-third as many operations. But vaginal hysterectomy is lauded as an operation which may safely be performed by the average man of limited experience. It is for this reason that a study of the statistics of occasional operators is of vital importance as showing the general average.

In order not to extend this paper unduly, the writer will not dwell upon the points which have already been emphasized by Dr. Jackson, but will simply present his reasons for abandoning vaginal hysterectomy except in the most favorable cases of malignant disease of the corporeal endometrium. The latter affection has been discussed at length in a recent paper read before the State Medical Society. Laparo-vaginal hysterectomy for cancer of the uterus is such a formidable operation that there are few cases in which it would be justifiable. In the first place, the immediate mortality from vaginal hysterectomy is high. Individual operators may present unusually favorable statistics, but the average death rate is certainly from ten to twenty per cent. There are unavoidable dangers (shock, secondary hemorrhage, uremia, intestinal obstruction) which we can hardly hope to overcome by the most perfect technique.

It is impossible by any of our present methods of examination to discover whether the disease is absolutely confined to the uterus or not. The fact that early recurrence of the disease occurs in cases which were apparently the most favorable, and nearly always at the border of the old cicatrix, shows that germs were hidden away in the perimetric tissues even when it seemed to be in its inception. If the disease has already extended as high as the os internum, it is highly improbable that it has not also extended laterally along the broad ligaments. "The successful removal of a cancerous uterus is a very different thing from the successful removal of a uterine cancer." One does not see how this question is ever going to be settled except empirically, and that, too, at the expense of the patient. If there is a risk anyhow, why not take the lesser?

The operation is not curative. At best it only prolongs the patient's life, the limit of which we can never predict in cases

of uterine cancer, even if absolutely untreated. The highest authorities are at wide variance as to the duration of life in cancer of the cervix, the most pessimistic placing it at twelve months, while others allow from eighteen to twenty; in cancer of the corpus uteri Pichot states that the average duration is thirty-one months. It will be admitted by all present that one year is as long as the majority of patients can be expected to go without recurrence after vaginal extirpation. There are notable exceptions to this rule, especially in the statistics of the Dresden clinic, reported by Münchmeyer in October, 1889—eighty hysterectomies in six years, with only four deaths, and fifty-nine patients still living without recurrence, although it is probable that many of the operations were performed within the past year. Moreover, there are well-authenticated cases in which the patient was alive and well from six to ten years after removal of the entire uterus; but Martin's statement at the last International Medical Congress, that of two hundred and fourteen women operated upon successfully by Leopold, Schroeder, Fritsch, and himself, only five were living at the end of four years, shows what the average surgeon has to expect.

It has been said that even if a recurrence does take place, the patient is free from pain and the disease progresses but slowly and is amenable to treatment. This the writer positively denies. He has now four cases under observation. It begins in the cicatrix, progresses rapidly, soon involves the rectum or bladder, and little can be done to hold it in check, certainly nothing in the way of vigorous curetting, as there is imminent danger of opening the peritoneal cavity. The fact that some patients hold out so long after recurrence is because they were in the most favorable general condition at the time of the operation, and would have long resisted the disease if none had been performed.

A somewhat extensive experience in the treatment of inoperable cases of carcinoma has convinced the writer that with proper care the condition of these patients is really quite as endurable as is that of those with recurrence, except that the latter do not have as much hemorrhage and discharge. So far as regards the *radical cure* of cancer of the cervix uteri by extirpation of the entire organ, he is inclined to agree

with the concluding statement of Jackson's paper, viz.: "A hundred women with uterine cancer will live a greater aggregate of years if left alone than if subjected to hysterectomy."

He intends henceforth to perform vaginal extirpation of the uterus only in those cases of malignant disease of the corpus in which the organ is not too large to be readily delivered per vaginam, and is freely movable, in which a careful examination under ether shows no evidence of involvement of the perimetric tissues or glands, while the patient's general condition is such as to offer a fair prospect of recovery from the operation and the enjoyment of several years of life. Under these circumstances he believes that the operation is clearly indicated to the exclusion of the sharp curette or the galvanocautery, with which we only work in the dark and incur a certain risk of perforating the uterine wall and causing fatal peritonitis. Four out of his seven cases were of this character, which shows at least some attempt at selection.

If the disease is limited to the portio vaginalis, he will amputate the cervix, using the cautery or not as may be indicated. If the disease has extended beyond the portio, there seems to be no method of removal which has given better results than that practised by Dr. Byrne. His statistics are so eloquent that it is unnecessary to add one word in their praise. Certainly it is the duty of every man who has much to do with uterine cancer not to be wedded to any single method of operation. There must be cases to which each one is especially adapted. It is the interest of the patient, not our own advancement in surgical skill or reputation, which we should consult. The successful performance of a brilliant operation is one thing, but back of all lies—conscience.

After all, it seems that we are too much influenced by the praise or blame of our contemporaries. A coming generation will judge us more justly, unbiassed by the prejudices which sway us. Perhaps by them we shall be esteemed, not so much for what we have done, as for what we have tried to do in the cause of truth. "The fire itself shall prove each man's work of what sort it is."

In reply to queries addressed to several prominent conservative surgeons in this country and abroad, the writer has

received replies which it would be interesting to quote *in extenso*, if space permitted.

Professor Verneuil, of Paris, writes that he still adheres to his published opinions regarding the advisability of performing high amputation instead of vaginal hysterectomy. He adds: "Depuis cette discussion [before the Surgical Society] le nombre des partisans de l'hystérectomie vaginale a beaucoup diminuée en France et sur tout à Paris, pour deux raisons, d'abord parceque l'opération n'est pas toujours innocente, et ensuite parceque la suivre après l'opération n'est pas plus longue qu'après l'ablation du col seulement."

Professor Pawlik, of Prague, states that, although he entertains the same opinion as formerly with regard to the value of the galvano-cautery in the treatment of cancer of the uterus, he has had less opportunity to practise this method since leaving Vienna. "I consider extirpation of the whole uterus in most cases of carcinoma of the collum an unnecessary operation, though I have performed a good number of them myself for want of a better method and because I had no galvanic apparatus. But these operations have confirmed my former view, that in most cases it was not necessary to extirpate the body of the womb in cases of carcinoma of the collum, because it was healthy, and that to prevent recurrence of the carcinoma it was a great deal more important to extirpate the connective tissue in the neighborhood of the uterus, which in advanced cases is infected by the new growth a long time before the corpus uteri. Dr. Pawlik, in a recent paper entitled *Extirpation des Uterus und des Beckenzellgewebes*, describes an operation in which, after locating the ureters by catheterizing them, he boldly excises all suspicious indurations in the peri-uterine tissues. As he writes, his statistics as regards recurrence after this radical procedure have been quite satisfactory. No operator could do this successfully without possessing at least in some degree his special skill.

Professor Hofmeier, of Würzburg, writes that he has performed fifty vaginal hysterectomies with six deaths, as against thirty-three amputations with one death. He still affirms, however, that the more radical operation gives no better ultimate results; in fact, none of the enthusiastic upholders of vaginal extirpation have yet shown as favorable statistics as

those of the late Professor Schroeder's clinic which he published a few years ago.

Dr. L. C. Lane, of San Francisco, the pioneer in vaginal hysterectomy in America, writes that he still adheres firmly to his views with regard to the advisability of extirpating the entire uterus for the cure of cancer of the cervix. In two out of his twelve cases there has been no recurrence in seven years.

Dr. Reamy, of Cincinnati, kindly replied at length, but space does not permit me to quote his remarks *in extenso*. He states that he has performed twelve hysterectomies since January 19th, 1885, one patient dying of shock and one of uremic coma. In eight cases recurrence took place within less than twelve months after operation, in one within thirteen, and in one within fifteen months, and ten patients are now dead. "My own clinical work," he adds, "leads me to believe that vaginal hysterectomy is justified in but comparatively few instances," *i.e.*, in sarcoma and in primary cancer of the body of the uterus. "As set forth in my paper published in vol. xiii. of the *Gynecological Transactions*," he continues, "it is still my belief that in other cases than those above specified high amputation of the cervix affords better opportunity for removal of all diseased tissues than hysterectomy, and that after high amputation recurrence is not so likely to occur. Certainly my own results have been far more successful, as regards recurrence, by the minor operation. The brilliant results obtained by Byrne in amputation of the cervix by the galvanocautery testify strongly on the same side of this question."

Dr. Henry T. Byford, of Chicago, writes that he has removed the uterus per vaginam eleven times for cancer of the cervix, and five times for cancer of the corpus uteri, with one death from delirium tremens. In one case recurrence took place in two months, in two in four months, in one in nine months, and one patient died at the end of ten months. In the first of six other cases, only nine months had elapsed since the operation. "Dr. William H. Byford," he adds, "has always performed amputation, but he has no recorded statistics. He reports quite a number living."

Dr. E. C. Dudley, of Chicago, informed the writer that he had performed six vaginal hysterectomies, five during the past two years. One which terminated fatally was unsuitable for

operation. Four of the five are without recurrence, and one patient is dead. Dr. Dudley thinks that "it is not yet time to render a positive decision." "The question now, in my judgment," he says, "is on the selection of suitable cases."